



FLORIDA KEYS

National Weather Service

New Technology Leads to Better Forecasts of Seas in the Gulf Stream

Marine forecasters at the Florida Keys National Weather Service can now deliver improved wave forecasts in the Gulf Stream thanks to better wave prediction tools, more powerful computers, and advanced training. Knowledge of the sea state in the Gulf Stream offshore the Florida Keys has long been important to mariner safety. The Gulf Stream, a large-scale ocean current, occasionally may reach 4 knots offshore the Florida Keys. Waves in the Gulf Stream often both increase in height and steepen when the current opposes the wind, leading to potentially hazardous marine conditions, especially for small craft.

In the past, National Weather Service meteorologists simply have acknowledged the potential for increased Gulf Stream wave heights by inserting the generic phrase, “seas higher in the Gulf Stream”. However, the implementation of a fledgling nearshore wave prediction system along with improved marine zone coverage gives local meteorologists the ability to predict Gulf Stream wave heights with greater precision and accuracy than ever before. In addition, the wave height forecasts (described as “seas”, referring to the average of the highest 33% of waves in a given wave population) can now be described in messages and illustrated by graphics available on the Internet.

Therefore, beginning on January 15, 2012, the Florida Keys National Weather Service will no longer use the phrase, “seas higher in the Gulf Stream”. Predicted Gulf Stream wave heights will be described explicitly in the Coastal Waters Forecasts for offshore zones encompassing the Gulf Stream. In addition, the Gulf Stream wave height forecasts will be presented visually, and will be available for all on the web.

Contact:	Links:
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